

TO: file

FROM: Tim Boardman

DATE: September 17, 2014

RE: Investigation of Citadel's operating practices of Well Indian, 1 API # 069-20082 in San Bento County. Issue brought up by Kassie Siegal, Center for Biological Diversity via email on 9/4/2014

The circumstances surrounding this investigation were brought to the attention of the Division of Oil, Gas, and Geothermal Resources' District 5 via an email from The Center of Biological Diversity (CBD) sent on September 4, 2014. CBD's email recited an allegation made by a Mr. Hinkle (a landowner) that about 80,000 gallons of produced water was injected into the well over the Labor Day weekend in September 2014 by the operator of the above-referenced well, Citadel. Concerned is heightened over this activity, as it occurred subsequent in time to a court order issued by Judge Wills on August 27, 2014 in connection with litigation involving CBD and Citadel. In response to the allegation, I investigated the situation and circumstances as follows:

I questioned Armen Nahabedian of Citadel via email requesting data and an explanation regarding the allegation.

- Mr. Nahabedian stated that Citadel did pump some fluid down the well; however, it was performed in line with normal oilfield practices to shut the well in. The hydrocarbon reservoir was subject to a cyclic steam process and a large amount of energy/heat is used in the process. This tends to raise the reservoir pressure. In order to ensure a safe shut-in a large amount of cold water is needed to coll or "kill" the well. Leaving the well in an un-killed condition, unattended, is not a good oil field practice.
- The fluids originally imported to the site for the kill operations was municipal water from King City.
- An inventory of the water as reported by Armen Nahabedian as of Tuesday September 9, 2014 was as follows: Approximately 10,000 barrels of water were brought into the lease in total. 3600 barrels were injected as steam, the rest was used for the roads and dust control. Citadel produced approximately 2600 barrels of fluid from the well, of which 100 barrels was oil. Of the remaining oil and water on location, approximately 500 barrels was to be hauled to a Citadel lease in Kern County. The facility is associated with well 2 in Section 26, T32S R25E, MD B&M, API # 030-33429, and once the oil is separated off, the remaining water will be disposed of in a commercial disposal well.
- Josh Jones, from our office, visited the site on Wednesday, September 10, 2014 and found the lease tanks virtually empty, and the well disconnected.

Based on this information received from Citadel, this situation appears to amount to a possible misinterpretation of a common practice to “kill” a well as a disposal” operation. The “killing” operations might appear to an outside observer as injection outside the normal operations because they observer doesn’t understand the dynamics of the heat retention and need for killing a well, etc.

Disposal would be beyond the scope of the permit issued by this Division. However, there are safety issues and implied operations that are allowed under our permit to operate. Killing a well is considered an acceptable procedure in drilling/reworking or operating a well. Thermal projects and steamed wells do take quite a bit of fluids to perform a safe killing operation. If the operation of killing a well was not allowed, safe operations would become impossible.

At this point, I do not have any information before me to prevent me from concurring with Armen Nahabedian’s explanation about the need for “killing” the well and the injection of fluids for that purpose. I would not want to see the well shut-in with pressure on the wellhead. It appears the project is now safely shut-in and idled.

CBD requested that the Division take enforcement action against Citadel. In order to do so the evidence would have to show Citadel’s actions clearly indicated wrong doing or bad practices. In this instance I cannot support an action against Citadel.

It should be noted that I did not contact Mr. Hinkle, the landowner, as no contact number was provided. Given the above information I could see no further reason to do so. I would believe him if he stated they pumped water down the well as there are legitimate reasons for the operations he saw.

Timothy Boardman, PG, CHG
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